

AMENDMENTS TO THE CLAIMS

Claim 1 (Withdrawn): A method for determining cyclase inhibiting parathyroid hormone (CIP) in a sample comprising:

a) adding to the sample a labeled antibody or antibody fragment specific for a peptide sequence for CIP that presents an epitope available for antibody binding in CIP, but will not bind to this same peptide sequence in cyclase activating parathyroid hormone, in an amount sufficient to bind the CIP present, wherein the CIP comprises a contiguous portion of PTH having an amino acid sequence set forth in SEQ ID NO:3 (PTH₁₋₈₄), having an N-terminal amino acid residue starting at position 7 of the PTH₁₋₈₄ and a C-terminal amino acid residue ending at position 84 of the PTH₁₋₈₄,

b) allowing the labeled antibody to bind to any CIP present, thereby forming a complex; and

c) measuring the amount of labeled complex.

Claim 2 (Withdrawn): The method of Claim 1 wherein the labeled CIP antibody or antibody fragment is one of the following, a monoclonal antibody and a polyclonal antibody.

Claim 3 (Withdrawn): The method of claim 1 wherein a second antibody is added which is bound to a solid support and specifically binds to a portion of CIP other than that of the labeled antibody, thereby forming a complex.

Claim 4 (Withdrawn): The method of Claim 3 wherein the solid support is selected from the group consisting of a protein binding surface, colloidal metal particles, iron oxide particles, latex particles, and polymeric beads.

Claim 5 (Withdrawn): The method of Claim 3 wherein the complex precipitates from solution.

Claim 6 (Withdrawn): The method of Claim 1 wherein the label or signal generating component is selected from the group consisting of chemiluminescent agents, colorimetric agents, energy transfer agents, enzymes, fluorescent agents, and radioisotopes.

Claim 7 (Currently amended): A method for measuring the amount of cyclase inhibiting parathyroid hormone (CIP) fragment in a sample comprising:

- a) adding to the sample a first antibody or antibody fragment specific for a peptide sequence for CIP that presents an epitope available for antibody binding in CIP, but does not bind to this same peptide sequence in cyclase activating parathyroid hormone, wherein the CIP comprises an amino acid sequence from between PTH₂₋₈₄ (SEQ ID NO: 4) and PTH₃₄₋₈₄ (SEQ ID NO: 5) a contiguous portion of PTH having an amino acid sequence set forth in SEQ ID NO:3 (PTH₁₋₈₄), having an N-terminal amino acid residue starting at position 7 of the PTH₁₋₈₄ and a C-terminal amino acid residue ending at position 84 of the PTH₁₋₈₄;
- b) allowing the first antibody to bind to any CIP present, thereby forming a complex;
- c) adding a second antibody that specifically binds to a portion of CIP other than the peptide sequence which binds to the first antibody and allowing the second antibody to bind to the complex, wherein said first antibody or said second antibody has a label or signal generating component attached thereto; and
- d) determining the presence, absence or amount of the labeled complex.

Claim 8 (Original): The method of Claim 7 wherein the second labeled antibody is added sequentially or simultaneously with the first antibody.

Claim 9 (Original): The method of Claim 7 wherein the first antibody is bound to a solid support.

Claims 10-16 (Cancelled)

Claim 17 (Currently amended): A kit containing agents for performing an assay for cyclase inhibiting parathyroid hormone (CIP) comprising:

a) a first antibody or antibody fragment specific for a peptide sequence for CIP that presents an epitope available for antibody binding in CIP, but does not bind to this same peptide sequence in cyclase activating parathyroid hormone, wherein the CIP comprises a contiguous portion of PTH having an amino acid sequence set forth in SEQ ID NO:3 (PTH₁₋₈₄), having an N-terminal amino acid residue starting at position 7 of the PTH₁₋₈₄, and a C-terminal amino acid residue ending at position 84 of the PTH₁₋₈₄; and

b) a second antibody that specifically binds to a portion of CIP other than the peptide sequence which binds to the first antibody, which is bound to a solid support.

Claim 18 (Previously presented): The kit of Claim 17 further comprising an antibody specific for the C-terminal portion of CIP.

Claim 19 (Previously presented): The method of Claim 7 wherein the second antibody is bound to a solid support, and wherein the solid support is selected from the group consisting of a protein binding surface, a colloidal metal particle, an iron oxide particle, a latex particle, and a polymeric bead.

Claim 20 (Previously presented): The method of Claim 19 wherein the labeled complex precipitates from solution.

Claim 21 (Previously presented): The method of Claim 7 wherein the label or signal generating component is selected from the group consisting of a chemiluminescent agent, a colorimetric agent, an energy transfer agent, an enzyme, a fluorescent agent, and a radioisotope.

Claim 22 (Previously presented): The method of claim 7, wherein the label or signal generating component is attached to the first antibody.

Claim 23 (Previously presented) The method of claim 7, wherein the label or signal generating component is attached to the second antibody.

Claim 24 (Previously presented): The method of Claim 7 wherein the first antibody or antibody fragment is either of the following, a monoclonal antibody or a polyclonal antibody.

Claim 25 (Previously presented): The method of Claim 7 wherein the second antibody or antibody fragment is either of the following, a monoclonal antibody or a polyclonal antibody.